TESTIMONY OF MARK MADDOX

PRINCIPAL DEPUTY ASSISTANT SECRETARY

BEFORE THE SUBCOMMITTEE ON ENERGY AND AIR QUALITY

COMMITTEE ON ENERGY AND COMMERCE

U.S. HOUSE OF REPRESENTATIVES

November 2, 2005

Mr. Chairman and members of the Subcommittee. I am pleased to be here today to discuss the Nation's energy supply and especially the supply and demand for heating oil this winter. I will also discuss the natural gas situation and its relationship to the heating oil market.

America's homes and businesses are heated predominantly by three fuels, heating oil, natural gas and electricity, the last of which is used for heat pumps and resistance heating. Heating oil provides heat to only about 7 percent of the fuel consumed by residences on a national basis, but the demand is not uniformly distributed; the Northeast consumes the about 73 percent of all the heating oil used in the country.

Heating oil and natural gas each have economic and security of supply advantages. Heating oil supplying the Northeast comes from a number of sources:

- Oil refined along the Gulf of Mexico is transported by water and by the Colonial Pipeline to the New York City gate;
- Refiners in New Jersey, Pennsylvania and Delaware ship their production to the Northeast by pipeline and by water;
- Imports mainly from Canada, the Caribbean, and Europe arrive by ship.

This diversity of supply has the obvious advantage of increased security: It would be rare for more than one source of supply to falter at the same time. The disadvantage is that most of these sources are distant from consumers and they are subject to interruptions due to shipping problems. Historically, we have been concerned that severe winter weather could freeze ports and delay ship movements at exactly the time that demand would be surging.

Unusual conditions can bring to light weaknesses in any system. In the late winter of 1999-2000, for example, the country suffered a severe cold spell. Just as demand was rising to record levels, domestic natural gas production slumped in the producing regions, harbors froze, North Atlantic storms kept ships at sea and barges could not move. Heating oil availability became spotty; dealers were rationing supplies and prices surged.

In response to that incident, the state and Federal governments have taken several actions to improve the security of supply. Coordination between the states and the Federal government has been improved, and the state energy

offices are in close contact with the Department of Energy. The Coast Guard has dedicated the necessary resources to assure that ports and rivers in the Northeast remain ice free and open to ship and barge movements. We also created a 2 million barrel inventory of heating oil called the Northeast Home Heating Oil Reserve, which is stored in New York Harbor, New Haven, Connecticut and Providence, Rhode Island. Since 2000, despite some severe winters these measures have helped assure that the Northeast has not suffered from any shortages of heating fuel.

The situation going into the winter of 2005-06 will be different from what we have grown to expect. Recent world economic growth caused a surge in oil demand that outstripped forecasts. Worldwide investment in oil exploration and production over the last ten years has been insufficient to maintain the wide margin of production capability above current demand that we have been used to. In addition, investment in refining has lagged demand growth, in large part because of the low returns on capital that beset the industry for many years. As a result, crude oil prices have been rising, and this year we realized that excess capacity had shrunk to a minimal level, and that Saudi Arabia and other member countries of the Organization of Petroleum Exporting Countries no longer had the ability to increase production and rapidly stabilize or reduce oil prices. During the summer of 2005, everyone realized that fuels for heating would be expensive this winter. However, inventories were building and we expected to go into the winter with the best inventory picture that we have had in years.

Hurricane season changed that. In late August, Hurricane Katrina devastated the Central Gulf Coast. A week later Hurricane Rita did the same thing to the Western Gulf Coast. The impact on the domestic oil industry was significant. At its worst point, virtually all production of oil and gas from the Gulf of Mexico was halted.

The Administration responded immediately to the hurricanes by taking a number of crucial measures to minimize the impact of the storm on the nation's energy supply:

- The Department worked to get power to the interstate pipelines that were essential to ensuring adequate supplies of refined products to the southeast and east coast.
- We authorized loans from the Strategic Petroleum Reserve to refiners in the Gulf region and the Midwest whose scheduled deliveries had been disrupted.
- The President authorized the sale of oil from the Strategic Petroleum Reserve to help keep markets well supplied at a time when there were widespread fears of looming shortages.
- We reached an agreement with the International Energy Agency for its members to release an additional 30 million barrels of crude oil and refined products to world markets.

- The Environmental Protection Agency provided temporary waivers allowing the early use of winter blend gasoline.
- The Department of Homeland Security rescinded legal restrictions on tanker transportation of fuel supplies.
- The Department of the Interior's Minerals Management Service immediately began to streamline processes for various permit approvals to resume production and expedited reviews of requests for temporary barging of oil until pipelines could be repaired.
- The Treasury Department increased the flexibility available to fuel distributors to meet diesel fuel demand by waiving penalties for highway use of "dyed" diesel fuel normally restricted to off-highway use.
- The Navy and Coast Guard worked to clear shipping channels in the Gulf and the Lower Mississippi River.
- And we worked with European allies to provide extra cargo tankers, as well as refined product to help supply the American gasoline market. These steps had a positive effect and helped calm the markets.

We do, however, want to note that additional facilities were shut-in due to Hurricane Wilma, resulting in an approximately four percent increase in shut-in production. These facilities did not sustain any damage and therefore, are expected to come back on line in the next few days. Nevertheless, as of early this week, 223 production platforms and 6 drilling rigs were still evacuated – the equivalent of 27 percent and 4 percent, respectively, of all platforms and rigs.

Approximately 100 platforms and rigs were destroyed by the storms. Shut in oil production still exceeds one million barrels of oil per day, or 68 percent of expected daily production from the Gulf. Similarly, shut in gas production from the Gulf is 5.6 billion cubic feet per day, equal to 54 percent of expected production. So far the country has foregone the production of 71 million barrels of oil and 360 billion cubic feet of gas during this time.

On shore, the damage to refineries, gas processing plants, and power lines was equally serious. Over two million barrels of daily refining capacity was shut down. While onshore pipelines were not damaged, the lack of power meant drastically reduced operations. And when the pipelines came back into service there was not enough refined product to keep them operating at capacity.

To a large extent the U.S. petroleum industry is making tremendous progress in recovering from the hurricanes, and it is a tribute to the workers in the Gulf region, many of whom have lost their homes and possessions, that they have done so much to restore electricity, pipelines, refineries and producing operations to service. At this time there are still four refineries with about one million barrels of capacity that have not returned to production, but two of these are expected to come back on line in November.

The product pipeline problems that created shortages of gasoline along the East Coast have been corrected. While crude oil production in the Gulf of Mexico is

still seriously hampered, imports are more than sufficient to meet demand, and inventories of crude oil are high and increasing. Furthermore, as refineries have come back on line and gasoline imports have continued at a high rate, gasoline is in ample supply. Inventories are rising and prices are declining from their peak.

The heating oil situation is less clear. While inventories of other products have been rising over the last several weeks, inventories of distillates have dropped. To some degree that is because the U.S. economy is still strong and the demand for diesel fuel has not abated, and refineries as they have come back on line are emphasizing gasoline production. However, the outlook is not bleak. The high prices occasioned by the hurricanes have caused refineries all over the world to put all available capacity to work. Contrary to recent talk about the growth in demand for distillates in Europe, and many predictions that there will be no imports this winter, imports surged last week. Furthermore, based on our conversations with industry we expect that distillates will continue to enter into the U.S. from all over the world, but especially from Asia.

As we actually go into winter, the demand for distillates will increase everywhere. However, that demand will be offset by the increase in domestic supply of distillates as refineries continue to come back on line.

The other factor that makes the heating oil situation unclear is that our supplies of natural gas from the Gulf of Mexico were so thoroughly disrupted. Natural gas

and distillates compete in many applications, and in the case of a disruption in supply for one product, a demand increase for the still available product can be nearly instantaneous. Prior to the hurricanes, industry observers believed that the target inventory level of 3.2 trillion cubic feet of natural gas entering the heating season would be achieved, and we still project that we will meet or exceed that goal, despite the disruption caused by the hurricanes. Whether that inventory will be adequate will depend on the rates of production from domestic fields, which in turn will be largely dependent upon the recovery of production and treatment facilities in the Gulf of Mexico and along the coast. It will also depend on the severity of the weather and the increased demand it could create.

Prices for natural gas are expected to remain high. According to the Energy Information Administration's October Short-Term Energy Outlook, under the baseline weather case, Henry Hub natural gas prices are expected to average around $9.00 per thousand cubic feet, or mcf, in 2005 and around $8.70 per mcf in 2006.

Total natural gas demand is projected to fall by 1.2 percent from 2004 to 2005 due mainly to higher prices, but recover by 3.0 percent in 2006 due to an assumed return to normal weather and a recovery in consumption by the industrial sector, which is projected to increase by about 6 percent over 2005 levels. Residential demand is projected to decline slightly from 2004 to 2005 mostly because of relatively weak heating-related demand during the first

quarter, while industrial demand is estimated to decline by nearly 8 percent over the same period due to the much higher prices for natural gas as a fuel or feedstock.

By 2006, both end-use sectors recover somewhat with residential demand estimated to increase 2.6 percent from 2005 levels and industrial demand increasing by 6 percent. The industrial rebound in 2006 is partly because of assumed reactivation of damaged industrial plants in the Gulf of Mexico region but also reflects renewed fuel demand growth as domestic industrial plants adjust to higher prices. Power sector demand growth continues through the forecast period along with electricity demand growth. The pace is slower than the 5.7-percent rate projected for 2005 because an unusually hot summer and high cooling demand boosted 2005 growth significantly.

Domestic dry natural gas production in 2005 is expected to decline by 3.0 percent, due in large part to the major disruptions to infrastructure in the Gulf of Mexico from both Hurricanes Katrina and Rita, but increase by 4.2 percent in 2006. Working gas in storage as of October 7 was estimated at 2.99 trillion cubic feet, a level 162 billion cubic feet below 1 year ago but still 1.2 percent above the 5-year average.

About 15 percent of our natural gas comes from Canada via pipeline. Otherwise, there is not much opportunity to import gas, and the possibility for a surge of

Canadian gas this winter is diminished because the expanding Alberta oil sands industry is a very heavy consumer of natural gas. Liquefied natural gas is a valuable but still relatively minor element in our natural gas supply. While it is an integral and essential part of the market, especially in Boston, the spot market for that product is so small that we cannot count on it for measurable relief in the event of shortages due to weather.

Faced with this situation, the Administration has taken every action available to the Government. First, the supply of crude oil appears to be ample, in part due to the decision by the President and the Department to use the Strategic Petroleum Reserve. Since the hurricanes we have loaned 10.8 million barrels of oil and sold 11 million barrels. In addition, the sale of oil was coordinated with the other member countries of the International Energy Agency. The United States has been able to import so much refined product during the last month in large part because the release of those products from strategic storage in Europe and Asia created the necessary price differentials for traders to export the products to the United States.

The Strategic Petroleum Reserve storage sites are all operating and capable of drawing down and selling oil as quickly as may be required. Further, we have made it clear to industry that if any individual company is having trouble finding feedstock for its refineries, we stand ready to make loans as necessary to assure

the refineries operate at maximum capacity. We do not foresee shortages this winter due to shortages of crude oil.

The only program directly affecting the availability of heating oil is the Northeast Home Heating Oil Reserve. The Reserve stands at its maximum authorized volume of 2 million barrels. The companies holding the oil for the Government are contractually bound to complete delivery of all the oil within 10 days of the Government contracting to sell the inventory. Our method for selling the heating oil is an internet-based interactive auction system, and we are ready to make the oil available, conduct an auction and award contracts within 48 hours of a declaration by the President of a severe petroleum supply interruption and subsequent authorization by the Secretary.

Beyond these efforts, it is our belief that the markets are acting to make the best of what has been a severely disrupted fall season. Nevertheless, now that the Hurricane season is coming to a close, fears are diminishing and prices are receding. The wholesale price of heating oil peaked at about $2.20 per gallon early in October, and is down about $0.30 per gallon from that point. While low inventories for distillates present the possibility of volatility, and the price of natural gas, heating oil and distillates in general will be high throughout the winter, the awareness that high prices brings will cause people to use natural gas and oil more sparingly and to take what measures they can to reduce consumption.

To encourage reduced energy consumption, the Administration has launched an energy efficiency and conservation campaign aimed at educating consumers on steps they can take to reduce their utility bills. Senior Department of Energy officials, led by Secretary Bodman, have been traveling the country to encourage consumer conservation efforts. We are also working with energy-intensive businesses and industries on ways to conserve. And the President has called on the Federal government to lead by example and conserve its own energy use.

Additionally, the Department has published the Energy Saver$ booklet, an informative guide for your constituents with helpful tips on saving energy and money at home. Both the President and Secretary Bodman have encouraged Federal agencies and employees to use these reference guides in their daily activities. Many Members have requested copies for their constituents and an on-line version has been emailed to your offices.

I would like to conclude by saying that the Department of Energy is in continual contact with state and local governments to monitor our heating fuel supplies, and that the Department stands ready to make the heating oil reserve available immediately in the event of a supply disruption.

This concludes my prepared testimony and I will be happy to answer any questions you may have.